

## ABSTRACT OF THE DISCLOSURE

In a radio wave radar system using a two-frequency CW modulation method, it is possible to detect a distance between a host vehicle and a forward vehicle and to realize a stable ACC following travel, even in a condition in which the relative speed is 0. By combining the two-frequency CW modulation method with the frequency pulse CW modulation method, that is, by using combination with the two-frequency CW method when the relative speed occurs and the frequency pulse CW method when the relative speed is close to 0, even if the relative speed is 0, the IF signal obtained from the reflected wave from the forward vehicle can be generated to detect the existence of the ACC target vehicle, so that it is possible to realize a stable ACC following travel.